

## **Consumer regulation strategies: Attenuating the effect of consumer references in a voting context**

JODIE WHELAN  
York University

MIRANDA R. GOODE, JUNE COTTE, and MATTHEW THOMSON  
Western University

Correspondence regarding this article should be sent to: Jodie Whelan, Assistant Professor of Marketing, School of Administrative Studies, York University, 4700 Keele Street, Toronto, Ontario, Canada, M3J 1P3 ([whelanj@yorku.ca](mailto:whelanj@yorku.ca); 647-471-4608). Miranda R. Goode, Assistant Professor and StarTech.com Professor in Customer Insights, Ivey Business School, Western University, 1255 Western Road, London, Ontario, Canada, N6G 0N1 ([mgoode@ivey.ca](mailto:mgoode@ivey.ca)). June Cotte, Scott & Melissa Beattie Professor in Marketing, Ivey Business School, Western University, 1255 Western Road, London, Ontario, Canada, N6G 0N1 ([jcotte@ivey.ca](mailto:jcotte@ivey.ca)). Matthew Thomson, R.A. Barford Professor in Marketing, Ivey Business School, Western University, 1255 Western Road, London, Ontario, Canada, N6G 0N1 ([mthomson@ivey.ca](mailto:mthomson@ivey.ca)). Funding for this research was provided by the first author's Vanier Canada Graduate Scholarship and by grants to the second, third, and fourth authors from the Social Sciences and Humanities Research Council of Canada.

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### **Abstract**

Consumption cues (e.g., brands, money, advertisements) can have powerful effects on cognition, perception, and behaviour, yet how people regulate responses to such cues is not well understood. This is surprising given that consumption cues are increasingly present in nontraditional consumer contexts, such as healthcare, education, and politics. This research develops a measure of two types of consumer regulation strategies, cue-based and budget-based (studies 1-4), and demonstrates that these strategies influence how people respond to consumption cues in a political context (study 5). Specifically, in a study involving the 2012 American Presidential Election, priming survey participants as consumers (versus citizens) influenced both voting intentions and self-reported voting behavior and the newly developed consumer regulation scale was instrumental in detecting this effect. These findings suggest there may be merit in the escalating debate and concern over referring to voters as consumers.

*Keywords:* regulation strategies, consumption cues, politics, voting, priming, scale development

With the rise of the modern economy after World War I, many industrial democracies began to view politics and citizenship “through the lens of consumerism” (Delacourt & Lenihan, 2011, p. 36). Nowhere is this more apparent than in the media, where the term *consumer* has become synonymous with *citizen* (Bauer, Wilkie, Kim, & Bodenhausen, 2012). For example, in the media discourse leading up to the 2012 American Presidential Election, *The New York Times* and *U.S. News & World Report* ran headlines including, “Caught up in Voting, Ads Ask Consumers to Cast a Ballot,” “What the Obamacare Ruling Means for Consumers,” and “Gloomy Consumers Foresee a Weak Economy on Election Day” (Elliott, 2012; Handley, 2012; Newman, 2012). Though the choice of terminology may seem insignificant, research shows that environmental cues, like the term consumer, can prime or activate certain concepts, making them more likely to influence behaviour (for a review, see Bargh & Ferguson, 2000). In particular, research finds that exposing people to various consumption cues (e.g., reminders of money, images of luxury goods, and consumer terminology) can activate a mindset that is more materialistic, present-focused, and exchange-oriented (Bauer et al., 2012; Chen, Ng, & Rao, 2005; Heyman & Ariely, 2004; Vohs, Mead, & Goode, 2006, 2008). Given this, the current research investigates if political preferences, specifically voting intentions in the 2012 American Presidential Election, would be affected by a common and seemingly innocuous practice: referring to voters as consumers.

To test this possibility, a two-part experiment was conducted with American voters. Prior to conducting this experiment, this research developed and validated a scale to assess individual differences in strategies used to control when and how people respond to consumption cues. Termed the *consumer regulation scale*, this metric assesses the use of two types of strategies: *cue-based strategies* include rules and behaviours designed to manage when and where

consumption cues are encountered outside conventional purchasing contexts, and *budget-based strategies* involve the use of monetary constraints to manage responses to consumption cues.

This newly developed consumer regulation scale is instrumental in showing that referring to survey participants as American consumers (versus American citizens) affected self-reported voting intentions and behaviour in the 2012 American Presidential Election.

This research contributes to the marketing literature by developing a psychometrically valid measure of consumer regulation strategies and demonstrating that it moderates consumption cue effects in a political context. In addition, despite the common practice of treating voters as consumers and extensive discussion regarding the consequences of this practice (e.g., Aberbach & Christensen, 2005; Gitlin, 1978; Greenfield, 2011; Schudson, 2006), there has been little evidence to suggest if referring to voters as consumers influences people's political preferences. The findings presented here address this gap and suggest there is merit in the escalating concern over treating (or at least referring to) voters as consumers.

The remainder of this article is structured as follows. It begins with a brief overview of the effects of consumption cues. It then turns to the literature on regulation strategies and the regulation of priming effects to introduce the concepts of cue-based and budget-based strategies. In studies 1-4, the consumer regulation scale is developed and tested for convergent, discriminant, and nomological validity. Study 5 demonstrates that consumer regulation strategies moderate the effect of consumption cues in a voting context.

## **Literature Review**

For nearly two decades, semantic activation and associative networks have been used to explain how mere exposure to situational cues (i.e., priming) results in the nonconscious or automatic activation of goals, stereotypes, and traits (Bargh, 1990; Dijksterhuis & Bargh, 2001). It is assumed that repeated and consistent activation of mental representations in response to certain stimuli or situational cues results in highly accessible, well-established associations that can be activated automatically (Dijksterhuis & van Knippenberg, 1998). Recently, mere exposure to consumption cues has been shown to activate values, attitudes, and behaviours related to impatience, materialism, and self-focus. For example, composites of seemingly unrelated brand logos (Coca-Cola, Nike, McDonald's, Disney) induced impatience (Chen et al., 2005); images of desirable consumer goods and entering a lottery activated materialism (Bauer et al., 2012; Kim, 2013); the term *consumer* triggered selfishness in a water conservation task (Bauer et al., 2012); and reminders of money made people more self-focused (Vohs et al., 2006, 2008) and more exchange-oriented (i.e., greater concern for equity-based, tit-for-tat norms of reciprocity; Heyman & Ariely, 2004). These nonconscious effects of consumption cues, combined with their extreme prevalence in daily life, necessitate a deeper understanding of how people self-regulate responses to these cues.

Self-regulation refers to “any effort by an organism to alter its own responses” (Tice & Bratslavsky, 2000, p. 150). Whenever people override an impulse or a response to an environmentally triggered influence, including the tendency to become more materialistic, self-focused, or present-oriented as may be triggered by a consumption cue (Bauer et al., 2012; Heyman & Ariely, 2004; Vohs et al., 2006, 2008), they are self-regulating. Importantly, people

use a variety of different regulation strategies<sup>1</sup> to influence how and when they respond to certain situational cues. For example, when watching a scary movie, people may distract themselves from their imminent fear by counting ceiling tiles or by telling themselves, “it’s only a movie” (Gross, 2001). These regulation strategies can be categorized according to when they impact the cued response. Individuals may use *antecedent-focused* strategies to prevent the cued response from becoming fully activated, like shifting one’s attention away from the movie to the ceiling tiles, or they may use *response-focused* strategies to modify resulting behavior after the cued cognitive or emotional response has already been put in motion, like reminding oneself it is just a movie (Droulers, Lacoste-Badie, & Malek, 2015; Gross, 1998, 2001). However, even research on antecedent-focused strategies assumes that individuals are aware of their imminent response (Webb, Miles, & Sheeran, 2012); consequently, these strategies cannot be applied to priming effects, which, by definition, occur without conscious awareness.

This does not mean that priming responses cannot be regulated. Though most priming effects are believed to be automatic and inescapable, research has shown that it is possible for people to regulate the influence of primes. Specifically, habitualized self-regulation strategies can intervene at the level of construct activation to result in control that is preventative, rather than corrective in nature (for a review, see Moskowitz, 2010). For example, the activation of stereotypes can be prevented by chronic attitudes, beliefs, and goals to respond without prejudice (e.g., Glaser & Knowles, 2008; Johns, Cullum, Smith, & Freng, 2008; Moskowitz, Gollwitzer, Wasel, & Schaal, 1999; Park, Glaser, & Knowles, 2008). In other words, frequently and consistently used regulation strategies can actually inhibit the activation of a well-learned set of

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<sup>1</sup> The term *strategy* is used with some reservation; it is not meant to indicate that these strategies are executed consciously. Though they may be executed consciously, regulation strategies are believed to be “executed automatically, without much conscious awareness or deliberation” (Gross & John, 2003, p. 348).

associations. Importantly, these priming effects are not attenuated by *general* self-regulation tendencies or abilities, but by regulation strategies that are specific to the cue or domain of interest. For example, a deep-seated commitment to the goal of judging women fairly and non-stereotypically inhibits the activation of gender stereotypes (Moskowitz et al., 1999).

Likewise, it is expected that the effects of consumption cue primes may also be regulated by strategies specific to managing common consumption behaviors. Specifically, it is proposed that individual differences in the use of consumer regulation strategies—that is, strategies used to control when and how people respond to consumption cues—exist and can reliably inhibit consumption cue influence. Thus, the purpose of this research is to develop a psychometrically valid scale to measure individual differences in the use of consumer regulation strategies and to examine if these strategies are able to regulate the effects of consumption cues.

Critically for the present research, it is expected that such strategies will be especially influential in nontraditional (i.e., noncommercial) consumer domains, such as politics (Peng & Hackley, 2009; Scammell, 1999). In situations where there are competing signals regarding expected behavior, individual differences variables are likely to matter more (Cooper & Withey, 2009). Such is the case in politics, where individuals often encounter conflicting signals as to whether they should act as citizens or as consumers. Indeed, there is a large body of research and a distinct subdiscipline of academics devoted to the merging of marketing with politics—much of which hinges on the consumer-as-voter metaphor (e.g., Kotler, 1975; O'Shaughnessy, 2001; Schudson, 2006; Shama, 1976; Speed, Butler, & Collins, 2015; Winchester, 2016). And although this metaphor is useful when viewed at a macro-level, research suggests its value may be limited when applied at a more micro-level analysis of individuals within a voting context. Specifically, Peng and Hackley (2009) find that voters engage with political marketing on a more emotional

level and with a deeper level of critical analysis than one would expect amongst consumers engaging with commercial advertising. Importantly, to the best of our knowledge, researchers have yet to examine the psychological and/or behavioral consequences of mere exposure to consumption cues in political domains. Thus, in study 5, we test (a) whether referring to voters as consumers can impact political preferences and (b) whether consumer regulation strategies will attenuate these responses.

### **Scale Development**

#### **Item Generation and Content Validity**

Item generation relied on both popular and theoretical notions of how individuals manage exposure to consumption cues. In exploratory research, we conducted depth interviews with nine adults recruited via public advertisements. During the interviews, participants described the prevalence, relevance, and maintenance of consumption cues in different aspects of their lives. Based on these interviews, two broad approaches were identified: managing tangible consumption cues (e.g., locale and advertising stimuli) and using budgets and other financial constraints (real or perceived). Items were generated to reflect these different approaches to managing exposure to and the influence of consumption cues. Additional items were drawn from websites, books, and blogs advocating how to manage consumption cues and unwanted consumption influences (e.g., Dholakia, 2000; Fontinelle, 2008; Rook & Hoch, 1985; Schor, 1998, 2004).

Seventy-seven items were generated. Three of the authors examined the items for clarity and face validity. Ambiguous and leading items were eliminated. Forty-four items remained. All items used a seven-point Likert-type scale (1 = *strongly disagree* to 7 = *strongly agree*) and



when necessary, were reverse-coded so that higher values indicated increased reliance on the strategy.

### **Study 1: Initial Administration**

In exchange for course credit, undergraduate students ( $N = 292$ ; 46% female;  $M_{\text{age}} = 18$ ,  $SD = 1.42$ ) participated in a survey and were asked to read and indicate their agreement with the 44 items previously generated. The item ratings were subject to a number of exploratory factor analyses using a varimax rotation. Exploratory factor analysis was used to reduce the large number of items to a more manageable set (Gerbing & Anderson, 1988; Thomson, MacInnis, & Park, 2005). Items with low factor loadings (below .50) and/or high cross-loadings (loading .50 or more on more than one factor) were eliminated (Hair, Anderson, Tatham, & Black, 1998). A scree plot revealed an 11-item, three-factor solution (all eigenvalues  $> 1$ ). A three-factor confirmatory factor analysis (CFA) revealed the following fit statistics: chi-square ( $X^2(41) = 67.79$ , minimum discrepancy divided by degrees of freedom (CMIN/DF) = 2.12, comparative fit index (CFI) = .94, normed fit index (NFI) = .90, and root mean square error of approximation (RMSEA) = .06.

Items were further eliminated on the basis of individual item reliabilities ( $< .50$ ) or modification indexes ( $> 3.84$ ; Bagozzi & Yi, 1988; Grohmann, 2009), resulting in a two-factor, seven-item scale (Table 1). The first factor, labeled *cue-based strategies*, was defined by items that reflect rules and behaviours people use to manage how often they encounter consumption cues outside of conventional purchasing contexts, for example, “Emails from favorite stores are a welcome distraction from other tasks” and “I keep pictures of things I want to buy in places

where I will frequently see them” (both items are reverse-coded so higher scores indicate stronger strategies). These items capture an individual’s openness to consumption cues and reminders outside of non-traditional purchasing contexts. The second factor, labeled *budget-based strategies*, was defined by items that reflect how people use monetary restraints to manage responses to consumption cues. For example, “I only let myself think about shopping when I have money to spend” reflects a reliance on monetary constraints to dictate when one may or may not seek out consumption cues and reminders. Eigenvalues of the two factors were 2.73 and 1.90 respectively. The two-factor CFA model indicated improved fit:  $\chi^2(13) = 14.95$ , CMIN/DF = 1.15, CFI = .99, NFI = .98, and RMSEA = .03. Scale characteristics for each study are in Table 1.

Although many types of consumer regulation strategies may exist, the two identified here also appear to be widely advocated by proponents of a more controlled approach to consuming (e.g., Dholakia, 2000; Fontinelle, 2008; Rook & Hoch, 1985; Schor, 1998, 2004). For example, websites on how to counter marketing influences (e.g., [adbusters.org](http://adbusters.org); Rumbo, 2002) emphasize avoiding advertising, and consumer advocates push for the removal of consumption cues from environments in which they are unnecessary (e.g., schools; Schor, 2004). However, despite appearing to represent popular notions of how to manage consumption cue influence, the ability of cue-based strategies and budget-based strategies to attenuate responses to situational consumption cues has never been tested.

--- Insert Table 1 about here ---

## **Study 2: Confirming the Stability of the Measure**

To confirm the stability of the scale using a different participant sample, and to assess the

relationship between cue- and budget-based strategies, American adults ( $N = 211$ ; 64% female;  $M_{\text{age}} = 47$ ,  $SD = 13.61$ ) were recruited via an online panel hosted by *Qualtrics* to complete the seven-item scale. Consistent with scale development of individual differences in emotion regulation strategies (Gross & John, 2003), structural equation modeling and confirmatory factor analysis were used to compare five different measurement models. Model 1 assumed all seven items load directly onto a single latent construct. Model 2 assumed two distinct first-order latent factors (cue and budget-based strategies) that combine to a second-order factor. Model 3 assumed two distinct and negatively correlated factors ( $r = -.50$ ), implying that individuals prefer either cue- or budget-based strategies, relying on one strategy and not the other. Model 4 assumed two independent but correlated first-order factors (i.e., the factors were free to correlate). Model 5 assumed two independent but non-correlated factors (i.e.,  $r = 0$ ). A comparison of the fit statistics suggests Model 4 best fits the data ( $CMIND/DF = 2.56$ ,  $CFI = .98$ ,  $NFI = .95$ , and  $RMSEA = .06$ ). This is further supported by a comparison of the models' chi-square statistics, which indicate that Model 4 ( $X^2 (13) = 33.27$ ) fits better than Models 1 ( $X^2 (14) = 201.33$ ), 2 ( $X^2 (14) = 58.16$ ), 3 ( $X^2 (14) = 46.25$ ), and 5 ( $X^2 (14) = 198.51$ ,  $p$ 's  $< .01$ ).

### **Study 3: Convergent and Discriminant Validity**

To assess convergent validity, correlations between cue- and budget-based strategies and theoretically relevant measures were investigated. Undergraduates ( $N = 157$ ; 31% female,  $M_{\text{age}} = 19$ ,  $SD = .90$ ) completed the survey in exchange for course credit. When cue- and budget-based strategies are weaker, participants were expected to report less control over shopping and spending behaviours, as evidenced by negative correlations between impulsive buying (Weun,

Jones, & Beatty, 1998), compulsive buying (Valence, d'Astous, & Fortier, 1988), and over-spending (i.e., being a spendthrift; Rick, Cryder, & Loewenstein, 2008) and cue- and budget-based strategies, which is exactly what was found (see Table 2). (See Appendix A for all items.)

To assess the discriminant validity of cue- and budget-based strategies from related constructs, two competing factor models were analyzed using chi-square difference tests for each pair of reflective constructs listed in Table 2 (e.g., cue-based strategies and impulsive buying; cue-based strategies and compulsive buying; etc.). The first model assumes all items reflect a single construct. The second model assumes two distinct but correlated constructs. Discriminant validity was assessed by comparing the chi-square values of each model (Arnett, German, & Hunt, 2003; Bagozzi & Phillips, 1982). If the chi-square value of the second model (two constructs) was significantly less than the chi-square value of the first model (one construct), discriminant validity was supported. All the reflective constructs demonstrate discriminant validity (see Table 2 for the values of the chi-square difference tests).

--- Insert Table 2 about here ---

#### **Study 4: Nomological Validity**

Nomological validity exists if measures behave in accordance with *a priori* hypotheses (Cronbach & Meehl, 1955). In this study, supraliminal exposure to consumption-related images was used to investigate whether individual differences in consumer regulation strategies moderate the effects of consumption cues. It was hypothesized that mere exposure to a consumption cue would induce consumption-related cognitions and more importantly, that these

effects would be moderated by consumer regulation strategies (Figure 1). Further, consistent with the existing literature on consumption priming effects, consumption-related cognitions were expected to subsequently lead to more materialistic, present-oriented, and exchange-oriented responses (Bauer et al., 2012; Chen et al., 2005; Heyman & Ariely, 2004). This anticipated activation pattern from concrete to abstract associations is consistent with established models of priming effects (e.g., Gruszka & Necka, 2002; Strack & Deutsch, 2004). That is, the effect of a consumption cue will be (a) greatest when both strategies are weaker and (b) weakest when both strategies are stronger. In addition, consumption-related thinking was expected to mediate the effect of consumption cue exposure on materialism, present orientation, and exchange orientation, such that a greater amount of consumption-related thinking will result in increased materialism, present orientation, and exchange orientation.

--- Insert Figure 1 about here ---

**Method.** To test for nomological validity, American adults ( $N = 197$ ; 49% female,  $M_{age} = 43$ ,  $SD = 14.99$ ) were recruited via an online panel hosted by *Qualtrics* to complete a “number of small, unrelated pretests.” All participants began by completing the seven-item consumer regulation scale. Then, after a short unrelated filler task, participants were randomly assigned to one of two conditions: consumption cue or control. In the consumption cue condition, participants viewed 12 consumption-related images (e.g., images of grocery shelves, credit cards, people shopping). In the control condition, participants viewed 12 images categorized as neutral in valence and arousal in the International Affective Picture System (e.g., images of elastic bands, fabric, architecture; control condition; Lang, Bradley, & Cuthbert, 2008). Each image was

displayed for five seconds. All participants were instructed to view the images carefully in order to respond to questions at the end of the study.

After the manipulation, participants completed the dependent measures: consumption-related thinking (e.g., “I think seeing those pictures made me want something new,” seven items,  $\alpha = .90$ ); materialism (e.g., “I admire people who own expensive homes, cars, and clothes”; nine items,  $\alpha = .88$ ; Richins, 2004); present orientation (e.g., “My behaviour is only influenced by the immediate (i.e., matter of days or weeks) outcomes of my actions”; nine items,  $\alpha = .92$ ; Joireman, Shaffer, Balliet, & Strathman, 2012); exchange orientation (e.g., “If I take a friend out to dinner, I expect him or her to do the same for me sometime”; five items,  $\alpha = .90$ ; Murstein, Wadlin, & Bond, 1987); and affect (e.g., “I feel happy,” five items;  $\alpha = .89$ ). All items used a seven-point Likert-type scale (1 = *strongly disagree* to 7 = *strongly agree*; see Appendix A for all items). Means, correlations, and chi-square difference tests (an analysis of discriminant validity) amongst all variables are reported in Table 3.

--- Insert Table 3 about here ---

**Results.** To rule out a mood explanation, affect was regressed on the consumption cue manipulation (1 = consumption cue; 0 = control), cue-based strategies, budget-based strategies, the interaction between consumption cue and cue-based strategies, the interaction between consumption cue and budget-based strategies, the interaction between cue and budget-based strategies, and their three-way interaction. Only the main effect of cue-based strategies was significant ( $\beta = -.15$ ,  $t(188) = -2.62$ ,  $p < .01$ ; all other  $p$ 's  $> .60$ ). Thus, the experimental manipulation did not differentially affect participants' moods across conditions.

A moderated mediation analysis was then conducted using the macro developed by Hayes (2013, model 11). This model estimated the effect of the consumption cue on materialism, present orientation, and exchange orientation directly and indirectly through consumption-related thinking, with the indirect effect of the consumption cue moderated by cue-based strategies, budget-based strategies, and their interaction. Consumption cue was dummy coded (1 = consumption cue; 0 = control). Cue-based strategies, budget-based strategies, and consumption-related thinking were mean-centered. A separate model was estimated for each outcome variable, and all three models displayed a similar pattern of results (Table 4).

--- Insert Table 4 about here ---

The three-way interaction between consumption cue, cue-based strategies, and budget-based strategies on consumption-related thinking was significant ( $\beta = .15$ ,  $t(186) = 1.98$ ,  $p < .05$ ;  $d = .29$ ). Further, the indirect effect of the consumption cue via consumption-related thinking on each of materialism, present orientation, and exchange orientation was significantly moderated by consumer regulation strategies. When cue-based strategies and budget-based strategies were both weak (1 SD below the mean), average (at the mean), or one strategy was weak and the other was average, the conditional indirect effect of the consumption cue on materialism, present orientation, and exchange orientation was significantly mediated by consumption-related thinking, that is, being exposed to the consumption cue increased consumption-related thinking, which subsequently increased materialism, present orientation, and exchange orientation (all confidence intervals excluded 0; Table 5). When either cue-based strategies or budget-based strategies were strong (1 SD above the mean), the conditional indirect effect of consumption cue exposure on materialism, present orientation, and exchange orientation through consumption-related thinking was not significant (all confidence intervals included 0; Table 5).

--- Insert Table 5 about here ---

**Discussion.** Consistent with our predictions, these results suggest that when a person is exposed to a consumption cue, the extent of consumption-related thinking increases, which then activates a psychological orientation that is more materialistic, present-focused, and exchange-oriented. Importantly, the extent of consumption-related thinking and the subsequent activation of this orientation depended on an individual's consumer regulation strategies. As expected, the effect of consumption cue exposure was attenuated by strong consumer regulation strategies: when either cue-based strategies or budget-based strategies were strong, the effect of consumption cue exposure was not significant. This study establishes nomological validity and demonstrates the importance of the consumer regulation scale in detecting consumption cue effects on previously investigated outcomes: materialism, present orientation, and exchange orientation (Bauer et al., 2012; Chen et al., 2005; Heyman & Ariely, 2004). After empirically establishing the critical importance of consumer self-regulation strategies in how people respond to consumption cues, this article now turns to the original question. Namely, can exposure to consumption cues have an effect in a political context?

### **Does Referring to Voters as Consumers Impact Political Preferences?**

After developing and validating the consumer regulation scale, the remainder of this article explores whether a seemingly innocuous practice, referring to voters as consumers, influences political preferences. Though the choice of terminology may seem trivial, triggering a more self-focused, present-oriented, and materialistic mindset could be enough to sway a voter by making certain candidates or positions more appealing. In particular, because self-interest,



acceptance of inequality, and a present orientation are all closely linked to a consumer ideology (e.g., Bauer et al., 2012; Belk, 1985; Borgmann, 2000; Burroughs & Rindfleisch, 2002; Johnston, 2007) and political conservatism (e.g., Jost, Glaser, Kruglanski, & Sulloway, 2003; Sidanius & Pratto, 2004; Stankov, 2009), it is predicted that encountering consumption cues in a political context should lead to greater favoritism towards conservative candidates, while voting as a *citizen* should make liberal policies that reinforce collectivism and economic fairness attractive (Graham, Iyer, & Meindl, 2013; Jost et al., 2003). Furthermore, in line with the results of study 4, this effect should be moderated by individual differences in consumer regulation strategies. To test these predictions, a two-part experiment was conducted with registered American voters the week before (part 1) and after (part 2) the 2012 American Presidential Election.

### **Study 5: Consumer Regulation Strategies Moderate the Effect of Consumption Cues on Political Preferences**

**Method.** American adults between the ages of 18 and 65 ( $N = 494$ ) were recruited via an online panel through *Qualtrics* to complete a two-part study. Part one of the study was collected approximately one week before Election Day (November 6, 2012). Participants were randomly assigned to one of three conditions: consumption cue, citizenship cue, or control condition. The manipulation was delivered in the study instructions by explicitly referring to study participants as “American consumers,” “American citizens,” or in the control condition, not explicitly referring to study participants at all (see Appendix B for manipulations).

After reading the instructions, participants answered two items regarding their voting intentions in the upcoming Presidential Election (“If you vote in the upcoming Presidential

Election, how likely is it you will vote for Barack Obama?” and “If you vote in the upcoming Presidential Election, how likely is it you will vote for Mitt Romney?” 1 = *very unlikely* to 7 = *very likely*; Landau et al., 2004). Because of the high negative correlation between the two items ( $r = -.93, p < .01$ ), intentions to vote for Obama was reverse coded and a voting intentions composite was formed by averaging the two items. Higher scores indicated greater intentions to vote for Romney; lower scores indicated greater intentions to vote for Obama (hereafter, “voting intentions,”  $\alpha = .96$ ). Although self-reports of voting intentions and behavior are imperfect measures, they have been used as acceptable proxies in various research settings (e.g., academia and commercial polling; Ajzen, Timko, & White, 1982; Ben-Ur & Newman, 2002; Greenwald, Smith, Sriram, Bar-Anan, & Nosek, 2009; Netemeyer & Burton, 1990; Pillai, Williams, Lowe, & Jung, 2003; Schiffman, Sherman, & Kirpalani, 2002; Singh, Leong, Tan, & Wong, 1995).

Part two of the study was administered the week after the election (t2 in Figure 1). Participants reported whom they voted for and completed the consumer regulation scale and a number of control variables, including age, gender, and a 12-item measure of conservatism (Henningham, 1996). By collecting these measures one week after the manipulation, it minimizes concerns that the manipulation influenced other important measures (namely, the moderators or control variables). Additionally, neither cue-based nor budget-based strategies was correlated with the measure of conservatism ( $r_s = -.08$  and  $.07$  respectively,  $p_s > .10$ ). This is an important finding because their orthogonal nature strongly suggests that the results of the subsequent analysis cannot be explained by the consumer regulation scale merely being a proxy for ideology or party affiliation. The final sample consisted of 349 Americans (44% female;  $M_{\text{age}} = 44, SD = 12.37$ ) who completed both parts of the study and who reported voting for either Obama or Romney in the 2012 Election (see Table 6 for descriptive statistics).

--- Insert Table 6 about here ---

**Results.** A moderated mediation analysis was conducted using the macro developed by Hayes (Hayes, 2013). This model estimated the effect of the study framing on actual voting behaviour directly and indirectly through intentions, with the indirect effect of the study's framing moderated by cue-based strategies, budget-based strategies, and their interaction (model 11, Table 7). To run this analysis, the study framing variable (comprised of the consumer, citizen, and control conditions) was recoded into two dummy variables to allow full representation of this variable in the analysis (West, Aiken, & Krull, 1996). The first dummy variable was coded to contrast the consumer and control conditions (1 = consumer; 0 = control). The second dummy variable was coded to contrast the citizen and control conditions (1 = citizen; 0 = control). Cue-based strategies, budget-based strategies, and voting intentions were mean-centered, and the analysis controlled for age, gender, and conservatism. Because the second dummy coded variable (involving the comparison between the citizen and control conditions), the interactive effects of this dummy variable and cue- and budget-based strategies, gender, and age were not significant, they were dropped from all subsequent analysis. In other words, the dummy coded variable retained in the moderated mediation analysis (which we call *consumption cue*) represents a comparison between the consumer condition versus the citizen and control conditions.

--- Insert Table 7 about here ---

The three-way interaction between consumption cue, cue-based strategies, and budget-based strategies on voting intentions was not significant. However, the two-way interactions between consumption cue and cue-based strategies ( $\beta = -.41$ ,  $t(340) = 2.31$ ,  $p < .01$ ,  $d = .25$ ) and consumption cue and budget-based strategies ( $\beta = -.51$ ,  $t(340) = 2.49$ ,  $p < .01$ ,  $d = .27$ )

significantly predicted voting intentions. Further, the indirect effect of the consumption cue via voting intentions was significantly moderated by consumer regulation strategies. Participants who were exposed to the word consumer in the survey and who have weak cue- *and* budget-based strategies (both 1 SD below the mean) reported greater intentions to vote for Romney (in comparison to the citizen and control conditions), which in turn resulted in a greater likelihood to vote for Romney (conditional indirect effect = 2.53; 95% confidence interval: .18, 5.51; Table 5). For participants who have either strong cue- or strong budget-based strategies (1 SD above the mean), the use of the term consumer did not affect voting intentions or voting behaviour. Participants who were exposed to the word consumer (versus citizen and control conditions) in the survey and who have strong cue- *and* budget-based strategies in place (both 1 SD above the mean) reported weaker intentions to vote for Romney (Figure 2), which in turn resulted in lower likelihood to vote for Romney (conditional indirect effect = -2.42; 95% confidence interval: -5.63, -.05; Table 5).

--- Insert Figure 2 about here ---

**Discussion.** These findings suggest that the use of consumption cues in political contexts could affect preferences and behavior and that accounting for individual differences in consumer regulation strategies may be instrumental in detecting such effects. As predicted, for individuals who are highly responsive to consumption cues (i.e., have weak cue- and budget-based strategies), being referred to as a consumer increased their intentions to vote for Republican Candidate Romney in the 2012 American Presidential Election. Interestingly, the ‘reverse’ effect was also detected: for individuals who are less responsive to consumption cues (i.e., have strong cue- and budget-based strategies), being referred to as a consumer increased their intentions to

vote for President Obama. In all cases, voting intentions subsequently predicted actual voting behavior.

Though unexpected, the reverse effect observed when both consumer regulation strategies were stronger could be due to those individuals detecting the cue as an unwanted and/or extreme source of bias and overcorrecting for its influence (Glaser & Banaji, 1999; Laran, Dalton, & Andrade, 2011). According to the correction literature, when people detect a source of unwanted bias, they attempt to control for its potential influence (Williams, Fitzsimons, & Block, 2004; Wilson & Brekke, 1994). Frequently, the correction is excessive and results in the opposite or reverse effect (Glaser & Banaji, 1999). For example, whereas brand logos activate associated traits, brand slogans trigger the opposite because slogans, and not logos, are viewed as a source of unwanted bias (Laran et al., 2011). Further, these over-corrections can occur without conscious awareness (Laran et al. 2011). If it is assumed that individuals with strong cue- and budget-based strategies are more likely to detect the consumption cue in the study framing as a source of unwanted bias, such an explanation could explain the reverse effect observed—that individuals strong in both cue-based strategies and budget-based strategies reported lower intentions to vote for Romney after being exposed to the consumption cue *in an attempt to counteract the unwanted influence of the cue*. Further research is needed to better understand the mechanism behind this unexpected effect.

Also unexpected, cue-based strategies significantly predicted voting intentions ( $\beta = .44$ ,  $t(340) = 5.26$ ,  $p < .001$ ). That is, it appears the stronger an individual's cue-based strategies, the more likely he or she intended to vote conservatively. Importantly, ideology, measured by a conservatism scale, and the use of the two specific regulation strategies were not correlated. However, it is worth noting that others have found differences in more general self-regulatory

processes between conservative and liberals (e.g., Rock & Janoff-Bulman, 2010). Future research may investigate why this distinction was not detected in this research. Perhaps, the specificity of the self-regulatory processes examined in this work may be a good starting point.

On a final note, these results should be interpreted with some caution. First, as with any priming effects, these effects are often temporary (Mikulincer & Shaver, 2007, p. 67). Though intentions did subsequently predict self-reported voting behavior, this path is not surprising since intentions should be highly predictive of behavior. Further, having participants report their intentions was likely significant in itself: prior research has shown that the reporting of intentions (or, from a researcher's perspective, the measuring of intentions) increases the likelihood of the reported/measured behavior (e.g., Greenwald et al., 1987; Morwitz, Johnson, & Schmittlein, 1993). In other words, had study 5 not measured voting intentions at time 1, it is unlikely the manipulation would have impacted voting behavior. Indeed, the lack of any direct effects on voting behavior in the analysis underscores the importance of voting intentions in the model. Second, the magnitude of the effects was small ( $ds < .30$ ). Consequently, though there is a significant effect of the consumption cue on voting intentions (as moderated by consumer regulation strategies), it is unlikely that entrenched, habitual political positions would be substantively affected by such a situational cue. Supporting this, conservatism, which was included as a covariate in our analysis, was a much stronger predictor of voting intentions ( $d = 1.13$ ). However, this does not minimize the substantive implications. If anything, this experiment should be viewed as a modest test of the effects of consumption cues in political contexts. Participants were exposed to the cue in an artificial, online environment, yet their voting intentions were influenced—at least temporarily. The impact of consumption cues on voting behaviour may be substantially larger, especially considering people likely encounter numerous

consumption cues as they head to their polling station (e.g., commercials on the radio) or may even be assigned to vote in malls—and research has already demonstrated that polling locations can affect how people vote (Berger et al., 2008; U. S. Election Assistance Commission, 2007). At the very least, these findings underscore the need for future research, and when possible, controlled experiments, exploring the consequences of referring to voters as consumers.

### **General Discussion**

Despite the widespread practice of referring to voters as consumers, there is little evidence to suggest if this practice can impact political preferences. In a two-part study conducted during the 2012 American Presidential Election, this research is the first to provide experimental evidence suggesting it might and that some people may be more susceptible to this practice. In fact, the newly developed consumer regulation scale was instrumental in detecting this. Without it, the study would have failed to detect any consequences of referring to voters as consumers. Importantly, our findings suggest that the voter-as-consumer metaphor is more than just a metaphor (O'Shaughnessy, 2001; Peng & Hackley, 2009; Schudson, 2006; Winchester, 2016)—being exposed to the term *consumer* in a political context can influence subsequent political preferences.

While these findings show that exposure to consumption cues can have at least a temporary effect in a political context, more research is needed to understand how this effect operates. What is it about consumption cues specifically that makes conservative candidates more attractive? Designing a highly controlled experiment with fake candidates, no political party affiliations, and measures of theoretically plausible mediators is likely the best way to

uncover the underlying mechanism(s). Given the potential theoretical and substantive implications of such work, such work is clearly worthwhile.

From a practical standpoint, these results suggest that those hoping to benefit from consumption cues in their political messaging may gain as much as they would lose among hypothetical swing voters. After all, there was no main effect of the survey framing, and the gains in Romney votes by voters who are more responsive to consumption cues likely offset the gains in Obama votes for voters who are less responsive to consumption cues. Given this, future research should focus on developing a deeper understanding of what accounts for and is associated with individual differences in responsiveness to consumption cues, perhaps identifying proxy indicators of cue- and budget-based strategies. In developing a superior understanding of what easily recognizable features (ones that might already exist in polling databases) correspond to a person who is more responsive to consumption cues, researchers may be able to identify groups vulnerable to sophisticated yet ethically-dubious tactics to sway voting and thus, form the basis for more in-depth public policy discussions on how this information should be used.

This research also contributes to a small but growing literature demonstrating that situational cues can influence political preferences and behaviour (Berger, Meredith, & Wheeler, 2008; Caruso, Vohs, Baxter, & Waytz, 2013; Cohen, Ogilvie, Solomon, Greenberg, & Pyszczynski, 2005; Eidelman, Crandall, Goodman, & Blanchard, 2012; Greenwald, Carnot, Beach, & Young, 1987; Landau et al., 2004). For example, a series of studies conducted in the months prior to the 2004 American Presidential Election found that reminders of death not only increased support for Bush (Landau et al., 2004) but also increased votes for Bush in a ‘mock’ election by a shocking 400% (Cohen et al., 2005, p. 183). Importantly, in these articles, as well



as in the study reported here, the experimental manipulations were relatively subtle and believed to affect political preferences and behavior outside of conscious awareness. Altogether, this suggests that political preferences may be more susceptible to situational influences than previously thought.

These findings also have important implications beyond political contexts. For example, hospitals, schools, and marketers are increasingly treating patients and students as healthcare and education *consumers* (e.g., Cerrato, 2014; Fifer, 2015; Kasperkevic, 2014; Shaffer & Sherrell, 1997). These results suggest such an approach may be affecting how people behave in these contexts. For example, when treated as consumers, patients may demand more quick fixes as opposed to long-term lifestyle changes and students may expect higher grades with minimal effort—after all, if they are paying consumers, shouldn't they be treated as such? Future research should test the potential consequences of exposure to consumption cues in these contexts and may benefit from using our measures of cue- and budget-based strategies to identify who is most and least responsive to these cues. Importantly, the consumer regulation scale is neither situation- nor cue-specific, making it applicable across contexts and different types of consumption cues.

The consumer regulation scale also provides us with a deeper understanding of consumption cue effects in general. Existing literature conceptualizes consumption cue effects as priming effects (e.g., Bauer et al., 2012; Vohs et al., 2006, 2008), which are considered automatic and therefore, inescapable (Bargh, 2006). The results of this research suggest otherwise. Having strong consumer regulation strategies can actually inhibit priming. Practically, identifying moderators (like consumer regulation strategies) enhances researchers' ability to detect and predict differences in the types and sizes of effects that can be expected among

different people and in response to a variety of consumption cues. This is crucial when insight is needed to determine the effects of empowering or discouraging students, patients, and voters to act more or less as consumers. In other words, failing to detect the effect of consumption cues in education, healthcare, and political contexts may lead academics, policymakers, and practitioners to conclude that these cues are of little consequence in these other non-traditional consumer contexts, but the results of study 5 suggest otherwise.

In summary, the findings of this research suggest that exposure to consumption cues can impact domains outside of traditional consumption/shopping situations. It is shown that when people approach an important political decision as a consumer, it can influence their voting intentions, at least temporarily. The measure of cue- and budget-based strategies developed here was pivotal to understanding this effect and showing that the increasingly common practice of referring to voters as consumers may not be innocuous for everyone.

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Table 1  
Varimax Rotated Factor Loadings, Internal Consistency, and Scale Intercorrelations for the  
Seven-Item Consumer Regulation Scale

	<i>Study</i>				
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<i>Cue-based strategies</i>					
1. Emails from favorite stores are a welcome distraction from other tasks (r)	.68	.58	.41	.58	.68
2. Most of my bookmarked websites are online stores (r)	.70	.73	.87	.67	.84
3. I keep pictures of things I want to buy in places where I will frequently see them (r)	.67	.73	.78	.79	.76
4. I subscribe to a lot of catalogues and/or store emails (r)	.81	.79	.77	.64	.74
<b>Highest of all cross loadings (absolute values)</b>	<b>.10</b>	<b>.10</b>	<b>.17</b>	<b>.08</b>	<b>.10</b>
<b>Internal consistency (alpha)</b>	<b>.80</b>	<b>.80</b>	<b>.80</b>	<b>.77</b>	<b>.84</b>
<i>Budget-based strategies</i>					
5. I only go shopping when I have money to spend	.77	.67	.83	.82	.78
6. I only let myself think about shopping when I know I can afford it	.75	.76	.67	.76	.73
7. My budget plays a big part in determining when I go shopping	.67	.79	.59	.67	.58
<b>Highest of all cross loadings (absolute values)</b>	<b>.13</b>	<b>.07</b>	<b>.17</b>	<b>.08</b>	<b>.08</b>
<b>Internal consistency (alpha)</b>	<b>.78</b>	<b>.78</b>	<b>.74</b>	<b>.80</b>	<b>.74</b>
<i>Psychometric properties</i>					
$\chi^2$ (13)	14.95	33.27	13.32	17.99	25.31
CMIN/DF	1.15	2.56	1.02	1.38	1.95
CFI	.99	.98	.99	.99	.98
NFI	.98	.95	.96	.95	.96
RMSEA	.02	.06	.01	.04	.05
Scale intercorrelation	.14*	-.06	.22**	-.04	-.08

\* $p < .05$ .

\*\* $p < .01$ .

\*\*\* $p < .001$ .

Table 2

Study 3 Descriptives, Reliabilities, Correlations, and Chi-Square Difference Tests Between  
Consumer Regulation Strategies and Related Variables

<i>Construct</i>	<i>No. of items</i>	<i>M</i>	<i>SD</i>	<i><math>\alpha</math></i>	<i>1.</i>	<i>2.</i>	<i>3.</i>	<i>4.</i>	<i>5.</i>
1. Cue-based strategies	4	5.51	1.22	.80	—	.21	-.21	-.42	-.28
2. Budget-based strategies	3	4.64	1.34	.74	99.40	—	-.24	-.40	-.41
3. Impulsive buying	5	4.21	1.17	.82	209.33	92.25	—	.59	.66
4. Compulsive buying <sup>ab</sup>	13	45.34	13.12	.87	168.29	79.58	96.74	—	.64
5. Spendthrift-tightwad <sup>ab</sup>	4	15.96	4.16	.74	183.59	64.04	30.12	65.53	—

Correlations are reported above the diagonal. Differences in the chi-square values of the two competing measurement models are reported below the diagonal.

All  $ps < .01$ .

<sup>a</sup>All items were measured on a 7-point scale, with the exception of compulsive buying which used a 5-point scale and spendthrift-tightwad which used different scales depending on the item.

<sup>b</sup>Scale value is mean of items, with the exception of compulsive buying and spendthrift-tightwad which are the sum of all items.



Table 3

## Study 4 Means, Correlations, and Chi-Square Difference Tests between Variables

<i>Construct</i>	<i>M<sub>Control</sub></i>	<i>M<sub>Consumer</sub></i>	<i>1.</i>	<i>2.</i>	<i>3.</i>	<i>4.</i>	<i>5.</i>	<i>6.</i>	<i>7.</i>
1. Cue-based strategies	4.85	4.42	—	<i>n.s.</i>	-.40	-.35	-.24	-.23	-.19
2. Budget-based strategies	4.81	4.85	195.09	—	.19	<i>n.s.</i>	.14	<i>n.s.</i>	<i>n.s.</i>
3. Consumption-related thinking	3.06	3.58	142.65	190.29	—	.57	.49	.44	<i>n.s.</i>
4. Materialism	3.71	3.87	147.98	192.27	349.11	—	.47	.40	<i>n.s.</i>
5. Exchange orientation	3.24	3.58	182.37	188.75	429.86	428.50	—	.51	<i>n.s.</i>
6. Present orientation	3.17	3.40	181.15	194.08	608.78	541.60	393.43	—	<i>n.s.</i>
7. Affect	5.11	5.18	175.00	177.29	513.20	525.40	563.30	523.00	—

Correlations are reported above the diagonal. Differences in the chi-square values of the two competing measurement models (one proposing a single construct and the other proposing two distinct but correlated constructs) are reported below the diagonal.

All correlation *ps* < .01 except *n.s.* denotes not significant.

All items were measured on a 7-point scale.

Table 4  
Study 4 Model Coefficients

<i>Predictors</i>	<i>MEDIATOR</i>			<i>OUTCOMES<sup>†</sup></i>								
	<i>Consumption-related thinking</i>			<i>Materialism</i>			<i>Present orientation</i>			<i>Exchange orientation</i>		
	<i>Coeff.</i>	<i>SE</i>	<i>t(186)</i>	<i>Coeff.</i>	<i>SE</i>	<i>t(191)</i>	<i>Coeff.</i>	<i>SE</i>	<i>t(191)</i>	<i>Coeff.</i>	<i>SE</i>	<i>t(191)</i>
Constant	.64	.24	2.63**	4.40	.26	20.32***	3.69	.26	14.43***	3.96	.29	13.75***
Consumption cue	.39	.16	2.52*	-.12	.14	.86	.00	.17	.02	.06	.19	.30
Consumption-related thinking (mediator)	—	—	—	.52	.06	8.90***	.42	.07	6.05***	.51	.08	6.56***
Cue-based strategies	-.28	.06	4.87***	—	—	—	—	—	—	—	—	—
Consumption cue x cue-based strategies	.15	.07	1.98*	—	—	—	—	—	—	—	—	—
x budget-based strategies	—	—	—	—	—	—	—	—	—	—	—	—
Consumption cue x cue-based strategies	-.18	.12	1.56	—	—	—	—	—	—	—	—	—
Budget-based strategies	.17	.06	2.96**	—	—	—	—	—	—	—	—	—
Consumption cue x budget-based strategies	-.24	.11	2.06*	—	—	—	—	—	—	—	—	—
Cue-based strategies x budget-based strategies	-.07	.04	1.99*	—	—	—	—	—	—	—	—	—
Age (covariate)	-.016	.005	3.01**	-.013	.005	2.84**	-.009	.006	1.59	-.012	.006	1.91
	$R^2 = .26$			$R^2 = .35$			$R^2 = .20$			$R^2 = .23$		
	$F(8, 186) = 8.09***$			$F(3, 191) = 33.81***$			$F(3, 191) = 15.40***$			$F(3, 191) = 18.79***$		

<sup>†</sup>For each outcome, a separate model was analyzed.

\* $p < .05$ .

\*\* $p < .01$ .

\*\*\* $p < .001$ .

Table 5

## Study 4 and 5 Conditional Indirect Effects of Consumer Prime at Values of the Moderators

<i>Values of the moderators</i>		<i>Study 4</i>									<i>Study 5</i>		
		<i>Via consumption-related thinking</i>									<i>Via intentions</i>		
		<i>Materialism</i>			<i>Present orientation</i>			<i>Exchange orientation</i>			<i>Vote</i>		
		<i>Effect</i>	<i>LLCI</i>	<i>ULCI</i>	<i>Effect</i>	<i>LLCI</i>	<i>ULCI</i>	<i>Effect</i>	<i>LLCI</i>	<i>ULCI</i>	<i>(0 = Obama; 1 = Romney)</i>		
<i>Cue</i>	<i>Budget</i>										<i>Effect</i>	<i>LLCI</i>	<i>ULCI</i>
-1 SD	-1 SD	<b>.65</b>	<b>.33</b>	<b>1.05</b>	<b>.52</b>	<b>.23</b>	<b>.97</b>	<b>.64</b>	<b>.26</b>	<b>1.14</b>	<b>2.53</b>	<b>.18</b>	<b>5.51</b>
-1 SD	M	<b>.34</b>	<b>.12</b>	<b>.67</b>	<b>.27</b>	<b>.07</b>	<b>.55</b>	<b>.33</b>	<b>.07</b>	<b>.63</b>	1.35	-.16	3.48
-1 SD	+1 SD	.02	-.37	.37	.02	-.28	.30	.02	-.36	.35	.16	-1.94	2.10
M	-1 SD	<b>.38</b>	<b>.15</b>	<b>.64</b>	<b>.30</b>	<b>.12</b>	<b>.56</b>	<b>.37</b>	<b>.12</b>	<b>.70</b>	1.46	-.35	3.96
M	M	<b>.21</b>	<b>.05</b>	<b>.40</b>	<b>.17</b>	<b>.04</b>	<b>.33</b>	<b>.20</b>	<b>.05</b>	<b>.41</b>	.17	-1.10	1.57
M	+1 SD	.04	-.19	.29	.03	-.17	.22	.03	-.19	.26	-1.13	-3.18	.31
+1 SD	-1 SD	.10	-.22	.41	.08	-.13	.35	.10	-.15	.47	.40	-2.39	3.20
+1 SD	M	.08	-.17	.29	.06	-.11	.24	.08	-.14	.31	-1.01	-3.30	.80
+1 SD	+1 SD	.06	-.26	.33	.04	-.21	.29	.05	-.25	.32	<b>-2.42</b>	<b>-5.63</b>	<b>-.05</b>

**Bold** indicates significant conditional indirect effect (confidence interval excludes 0).

All confidence intervals reflect a 95% level of confidence and were generated using 1000 bootstrap samples.

Table 6  
Study 5 Descriptive Statistics

<i>Condition</i>	<i>N</i>	<i>% female</i>	<i>% voted Romney</i>	<i>MEANS</i>				
				<i>Voting intentions</i>	<i>Cue-based strategies</i>	<i>Budget-based strategies</i>	<i>Conservatism</i>	<i>Age</i>
Control	109	58.72	44.04	3.60	4.54	4.73	23.01	43.61
Citizen	130	54.62	44.62	3.65	4.67	4.83	22.52	45.25
Consumer	110	50.91	40.00	3.52	4.47	4.83	22.07	42.04

Table 7  
Study 5 Model Coefficients

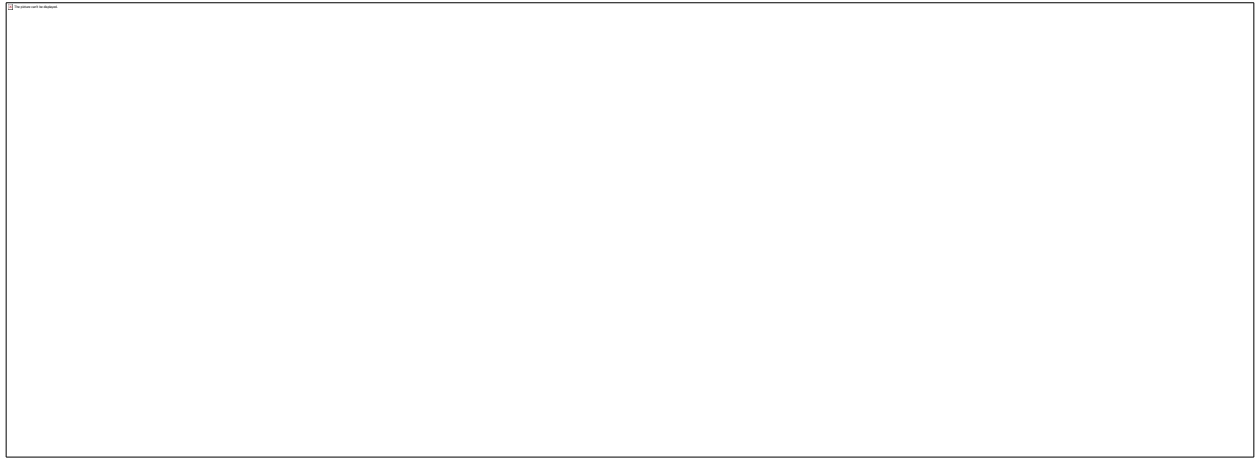
<i>Predictors</i>	<i>MEDIATOR</i>			<i>OUTCOME</i>		
	<i>Voting intentions<sup>a</sup></i>			<i>Actual vote</i>		
	<i>Coeff.</i>	<i>SE</i>	<i>t(340)</i>	<i>Coeff.</i>	<i>SE</i>	<i>Z</i>
Constant	-1.34	.48	2.75**	-7.82	1.79	4.36**
Consumption cue	.08	.26	.32	-.78	.69	1.12
Voting intentions (mediator)	—	—	—	2.00	.30	6.75***
Cue-based strategies	.44	.08	5.26***	—	—	—
Consumption cue x cue-based strategies	-.41	.18	2.31*	—	—	—
Budget-based strategies	-.02	.09	.26	—	—	—
Consumption cue x budget-based strategies	-.51	.20	2.49*	—	—	—
Cue-based strategies x budget-based strategies	.04	.06	.59	—	—	—
Cue-based strategies x budget-based strategies x consumption cue	-.03	.13	.23	—	—	—
Conservatism (covariate)	.22	.02	10.46***	-.01	.07	-.07
	$R^2 = .29$			Nagelkerke $R^2 = .92$		
	$F(8, 340) = 17.51***$					

<sup>a</sup>Higher values indicate stronger intentions to vote for Romney.

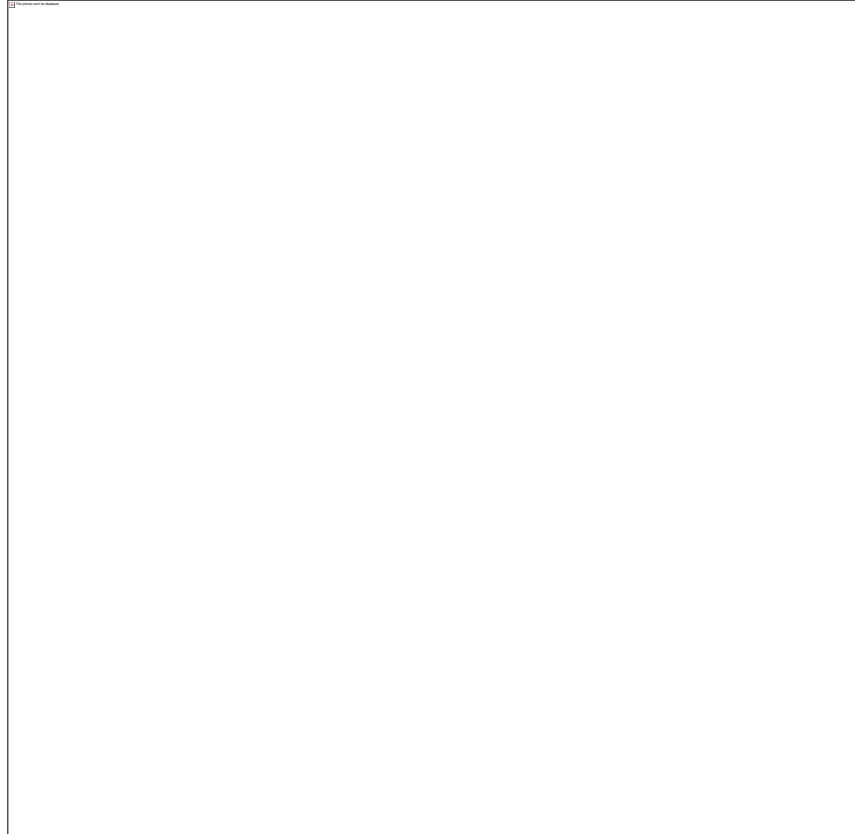
\* $p < .05$ .

\*\* $p < .01$ .

\*\*\* $p < .001$ .



**Figure 1. Study 4 and 5 conceptual model**



**Figure 2. Voting intentions as a function of survey framing and consumer regulation strategies (controlling for conservatism). Higher (lower) voting intentions represent greater intentions to vote for Romney (Obama).**

## Appendix A: Full phrasing of all scale items used

### Study 3

---

#### *Impulsive buying (Weun et al., 1998)*

---

1. When I go shopping, I buy things I had not intended to purchase
  2. It is fun to buy spontaneously
  3. I avoid buying things that are not on my shopping list (r)
  4. I am a person who makes unplanned purchases
  5. When I see something that really interests me, I buy it without considering the consequences
- 

1 = *strongly disagree* to 7 = *strongly agree*

(r) indicates reverse-scored item

Scale value is the mean of all items

---

#### *Compulsive buying (Valence et al., 1988)*

---

1. When I have money, I cannot help but spend part or all of it
  2. I am often impulsive in my buying behavior
  3. For me, shopping is a way of facing the stress of my daily life and relaxing
  4. I sometimes feel that something inside me pushed me to go shopping
  5. There are times when I have a strong urge to buy
  6. At times, I have felt somewhat guilty after buying a product because it seemed unreasonable
  7. There are some things I buy that I do not show to anybody for fear of being perceived as irrational in my buying behavior
  8. I often have an unexplainable urge, a sudden and spontaneous desire, to go and buy something
  9. As soon as I enter a shopping center or mall, I have an irresistible urge to go into a shop and buy something
  10. I am one of those people who often responds to direct mail offers
  11. I have often bought a product that I did not need, while knowing that I have very little money left
  12. I am a spendthrift
  13. I have sometimes thought, "If I had to do it over again, I would..." and felt sorry for something I have done or said
- 

1 = *strongly disagree* to 5 = *strongly agree*

(r) indicates reverse-scored item

Scale value is the sum of all items

---

#### *Spendthrift-tightwad (Rick et al., 2008)*

---

1. Which of the following descriptions fits you better?  
1 = *tightwad (difficulty spending money)* to 7 = *spendthrift (difficulty controlling spending)*
2. Some people have trouble limiting their spending: they often spend money—for example, on clothes, meals, vacations, phone calls—when they would do better not to. Other people have trouble spending money. Perhaps because spending money makes them anxious, they often don't spend money on things they should spend it on.

How well does the first description fit you? That is, do you have trouble limiting your spending?

1 = *never* to 5 = *always*

3. How well does the second description fit you? That is, do you have trouble spending money?  
1 = *never* to 5 = *always*

4. Following is a scenario describing the behavior of two shoppers. After reading about each shopper, please answer the question that follows.

Mr. A is accompanying a good friend who is on a shopping spree at a local mall. When they enter a large department store, Mr. A sees that the store has a "one-day-only sale" where everything is priced 10%-60% off. He realizes he doesn't need anything, yet can't resist and ends up spending almost \$100 on stuff.

Mr. B is accompanying a good friend who is on a shopping spree at a local mall. When they enter a large department store, Mr. B sees that the store has a "one-day-only sale" where everything is priced 10%-60% off. He figures he can get great deals on many items that he needs, yet the thought of spending money keeps him from buying the stuff.



In terms of your own behavior, who are you more similar to, Mr. A or Mr. B?

1 = *Mr. A.* to 5 = *Mr. B.*

Scale value is the sum of all items

## Study 4

### *Consumption-related thinking*

1. I think seeing those pictures made me want something new
2. I think seeing those pictures made me happy
3. I think seeing those pictures made me think about things I want to buy
4. I am hoping that I can afford some of the pictures I saw in the future
5. I felt a bit of a rush after seeing those pictures
6. I think the pictures I saw were frustrating
7. I think seeing those pictures helped me dream of what my life could be like

1 = *strongly disagree* to 7 = *strongly agree*

Scale value is the mean of all items

### *Materialism (Richins, 2004)*

1. I admire people who own expensive homes, cars, and clothes
2. The things I own say a lot about how well I'm doing in life
3. I like to own things that impress people
4. I usually buy only the things I need (r)
5. I try to keep my life simple, as far as possessions are concerned (r)
6. Buying things gives me a lot of pleasure
7. My life would be better if I owned certain things I don't have
8. I'd be happier if I could afford to buy more things
9. It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like

1 = *strongly disagree* to 7 = *strongly agree*

(r) indicates reverse-scored item

Scale value is the mean of all items

### *Present orientation (Joireman et al., 2012; Strathman et al., 1994)*

1. I only act to satisfy immediate concerns, figuring the future will take care of itself
2. My behavior is only influenced by the immediate (i.e., a matter of days or weeks) outcomes of my actions
3. My convenience is a big factor in the decisions I make or the actions I take
4. I generally ignore warnings about possible future problems because I think the problems will be resolved before they reach the crisis level
5. I think that sacrificing now is usually unnecessary since future outcomes can be dealt with a later time
6. I only act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date
7. Since my day-to-day work has specific outcomes, it is more important to me than behavior that has distant outcomes

1 = *strongly disagree* to 7 = *strongly agree*

Scale value is the mean of all items

### *Exchange orientation (Murststein et al., 1987)<sup>1</sup>*

1. When buying a present for someone, I often try to remember the value of what they have given me in the past
2. If I tell someone about my private affairs (business, family, love experiences), I expect them to tell me something about theirs

3. I wish people would show more acknowledgement when I say or do nice things to them
4. If I praise a friend for his or her accomplishments, I expect him or her to praise me for mine as well
5. If I take a friend out to dinner, I expect him or her to do the same for me sometime

---

1 = *strongly disagree* to 7 = *strongly agree*

(r) indicates reverse-scored item

Scale value is the mean of all items

<sup>1</sup> Due to concerns of response fatigue, we only collected 5 items of the 16-item exchange orientation scale. These items were chosen because they were judged to have superior face validity. Further, a posttest (N = 152) revealed that the 5-item subset was highly correlated with the original 16-item measure ( $r = .84, p < .001$ ).

---

### *Affect*

---

1. I feel calm
2. I feel happy
3. I feel smart
4. I feel excited
5. I feel hopeful

---

1 = *strongly disagree* to 7 = *strongly agree*

Scale value is the mean of all items

## Study 5

---

### *Conservatism (Henningham, 1996)*

---

Please indicate whether you support the following:

1. Death penalty (C)
2. Multiculturalism (L)
3. Stiffer jail terms (C)
4. Voluntary euthanasia (L)
5. Bible truth (C)
6. Gay rights (L)
7. Pre-marital virginity (C)
8. Asian immigration (L)
9. Church authority (C)
10. Legalized abortion (L)
11. Condom vending machines (L)
12. Legalized prostitution (L)

---

1 = *no*; 2 = *undecided*; 3 = *yes*

(C) indicates a conservative item; (L) indicates a liberal item. Liberal items were reverse-scored

Scale value is the sum of all items

## **Appendix B: Study 5 Manipulations**

### **Consumer condition**

This is a study of American consumers' political opinions. We are interested in your evaluations of President Obama. This study is in no way affiliated with any government organization, polling organization, or political party. All responses will be kept anonymous.

To partake in this study, you must be an American consumer. Please confirm your eligibility by indicating that you are an American consumer.

### **Citizen condition**

This is a study of American citizens' political opinions. We are interested in your evaluations of President Obama. This study is in no way affiliated with any government organization, polling organization, or political party. All responses will be kept anonymous.

To partake in this study, you must be an American citizen. Please confirm your eligibility by indicating that you are an American citizen.

### **Control condition**

This is a study of political opinions. We are interested in your evaluations of President Obama. This study is in no way affiliated with any government organization, polling organization, or political party. All responses will be kept anonymous.